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LENSALYZA PHOTOGRAPHY STUDIO RESERVATION SYSTEM

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ABSTRACT

Lensalyza Photography Studio is an organization that provides photography reservation service. This company located at strategic area that is students and publics gathered area that they visit to reserve photography like wedding event, engagement, convocation, family portrait and so on. Besides, this company also provides photography reservation service through telephone, social page like Facebook and direct reservation with company. However, Lensalyza studio's reservation is done manually whereby operators record customer's information by manual. There are many problems occurred in which overturn of reservation data and manual report generation through file system. The main purpose of this project is to automatize the manual system to web system. In conclusion, this system able to help publics reserve photography easily, faster and accurate and some more facilitate operator's works in terms of file management system.

KEYWORDS

Photography, Facebook, file system, management system, reservation service.

1. INTRODUCTION

Lensalyza Photography Studio is an organization that provides photography reservation service. This company located around strategic location which is students and publics gathered area that they visit to make photography reservation like wedding event, engagement, convocation, family portrait and so on [1]. Besides, this company also provides photography reservation service through telephone, social page like Facebook and direct reservation with company. However, Lensalyza studio's reservation is done manually whereby operators record customer's information by manual.

1.1 Objective

The main objective for this project is to build an online system which is Lensalyza Photography Studio Reservation System. Therefore, the objectives that need to be implemented are as below:

1. Design a reservation system that can support online system for a systematic management of reservation data.
2. Develop an online photography reservation system that can generate profit report efficiently.
3. Carry out alpha and beta testing to users towards photography reservation system

1.2 Project Scope

Project scope in developing this system is for the use of operator of Lensalyza Studio, Puan Nur Haliza bt. Sabudin which is the owner of the company and also her customer which is photography reservation customers [2]. Photography reservation mostly concentrated on three states which are Johor, Kuala Lumpur and Selangor [3-5]. This company located at Taman Universiti, Parit Raja, Batu Pahat, Johor. The location of the company is strategic and situated at students and publics gathered area. Besides, there are many types of package provided according to the selected event. Examples of provided package are diamond package, platinum, gold and silver. Package information is provided to make customer's selection more convenient and accurate. This system also included a few modules which registration module are, login module, category and package module, reservation module, report module and send SMS module.

2. LITERATURE REVIEW

Literature review is a concept which is used in research that includes the whole system. It is aimed to collect information and determine the problems occurred and increase the developed system results [6-10]. Literature review also enable operator and system user to detect the actual problem that occurs in the current system.

2.1 Comparison between similar system

Studies on similar system are carried out to make a comparison on the available system to determine the weaknesses so that improvements on Lensalyza Photography Studio Reservation System are done [11]. The study is made between three similar function systems and the proposed system. Among others are Amrieibrahim Photography Reservation System, Nasirzin Photography Reservation System and Kelip-kelip Phototgraphy Reservation System [12].

2.1.1 Amrieibrahim Photography Reservation System

Amrieibrahim Photography Reservation System is a blog page that enables customers to make photography reservation for the use of wedding event, engagement, family portrait and so on [13]. In case, customers want to make reservation, they have to send email or contact the company to make photography reservation.

2.1.2 Nasirzin Photography Reservation System

Nasirzin Photography Reservation System is a blog page that provides photography reservation service. In this reservation system, there provides reservation forms for customers to make their desired reservation based on the link *Request Quotation Form*.

2.1.3 Kelip-kelip Phototgraphy Reservation System

Kelip-kelip Phototgraphy Reservation System takes initiative action to promote their business through social page like facebook [14]. If customers are interested to make reservation, customers have to send a private message to the operator of Kelip-kelip.

2.1.4 Lensalyza Photography Studio Reservation System

This system is built to replace manual reservation to online reservation. With the developed system, it can help customers to acquire information regarding the desired photography reservation more easily and accurately [15]. This clearly shown that the developed system which is Lensalyza Photography Studio Reservation System contains supported aspects like registration module, login module, reservation module and report module.

2.2 Comparison between similar system

Comparison between systems is to compare the strong points and the weak points between available systems and proposed system. Table 1 shows the comparison between similar systems and proposed system.

Table 1: Comparison between similar systems and proposed system

Features	Registration module	Login module	Online Reservation Module	Report Module
Amrieibrahim Photography Reservation System	No registration	No login, blog is the general display	No, customers have to contact the company or send email	No report generation
Nasirzin Photography Reservation System	No registration	No login, blog is the general display	Provide reservation form	No report generation
Kelip-kelip Phototgraphy Reservation System	Provide registration	Provide login	No, customers have to send message to their inbox or contact the company	No report generation
Lensalyza Photography Studio Reservation System	Provide registration	Provide login for operator and customer	Provide reservation form	Provide report generation

In conclusion, based on the studies that has been done, it helps in the process of developing Lensalyza Photography Studio Reservation System. The online Lensalyza Photography Studio Reservation System facilitates the reservation process.

3. METHODOLOGY

To develop the system, methodology chosen is extremely important to facilitate the implementation of the project development. According to Dewan Dictionary Edition Four (2005), methodology is defined as a system that involves one method and principle in carrying out a project [6]. Besides, methodology can be classified as a systematic activity reference to solve a problem by developing a programming application. Methodology is chosen and described in detailed with explanation for each phase.

3.1 Waterfall Methodology

Waterfall methodology is a concept whereby it describes each level that involves in the project development. Methodology chosen for the development of Lensalyza Photography Studio Reservation System is Waterfall Model. Figure 1 below shows phases for the development of waterfall methodology.

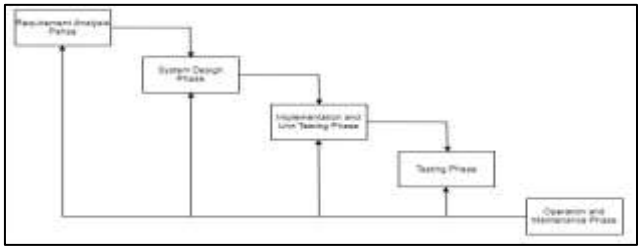

Figure 1: Waterfall methodology phases (Source: Sommerville, 2004)

There are five phases involve during system implementation. Each phase is described as below:

3.1.1 Requirement Analysis Phase

Requirement analysis phase is the first phase, where process started by collecting and determining requirements needed for project development. This is because information is needed to be identified and understand attentively so that system is carried out effectively.

3.1.2 System Design Phase

The second phase is the phase to design the proposed system. The involved activities are process modeling and system requirement analysis represented by context diagram, data flow diagram (DFD), database design, entity relationship diagram (ERD) and user interface.

3.1.3 Implementation and Unit Testing Phase

The third phase is implementation and testing phase which involves the actual system development whereby the program system development will be done by using the appropriate software. All software, hardware and application program are used fully to translate design into program code. The development of system program will be done by using the appropriate software which is Hypertext Preprocessor (PHP) while system interface uses Adobe Dreamweaver CS6 software.

3.1.4 Testing Phase

The fourth phase is testing phase whereby testing is done to the system by ensuring the developed system have no error and can function according to users' needs. Besides, it is used to measure and evaluate the ability of the system's function.

3.1.5 Operation and Maintenance Phase

Operation and maintenance phase is the last phase in waterfall model. This phase is done to examine whether the developed system can used by user. After users and operators satisfied with the developed system fully, the developed system can operate on a whole. If there occur any mistakes, system developer has to correct it in this phase.

4. ANALYSIS AND DESIGN

This chapter will discuss about system requirement analysis and design in details so that users can understand the process and system development flow clearly and accurately.

4.1 System Requirement Analysis

This chapter will discuss about system requirement analysis needed in system development. Below is the context diagram and level 0 data flow diagram.

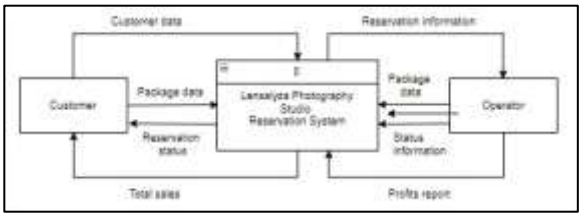

Figure 2: Context diagram for Lensalyza Photography Studio Reservation System

Contact diagram is an early image of the system that shows the border for a developed system. Moreover, it displays the incoming data and outgoing data for a developed system. Diagram 2 shows the context diagram for Lensalyza Photography Studio Reservation System. It involves two types of entities which are customers and operators. Customers have to input customers' data and package data for reservation [16]. After successful reservation, customers can acquire the total payment and reservation status from the system. Operator need to fill in package information and status information for every reservation that is done by customers. Furthermore, system will provide reservation information and generate profits report.

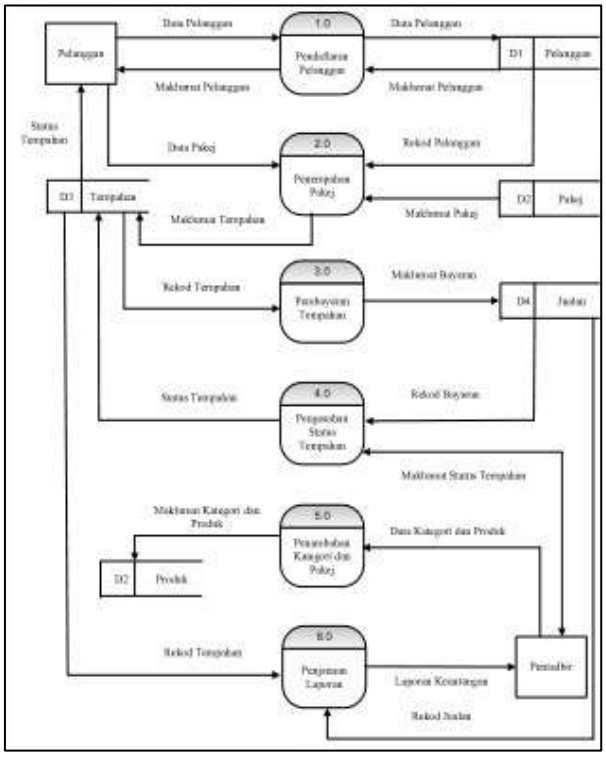

Figure 3: Level 0 Data Flow Diagram of Lensalyza Photography Studio Reservation System

Diagram 3 shows level 0 data flow diagram which consists of six processes that is customer registration, package reservation, reservation payment, reserve status validation, add category and package and report generation. The first process occurs whereby customers are involved in registration, customers have to input customer data to the system for registration process. After customers done registration, they will bring their customers' record to make package reservation. The second process occurs whereby customers bring their package reservation data to make their desired package reservation. The third reservation occurs whereby, after package reservation is done, customers have to make reservation payment. The payment information are save to sales. After that, the fourth phase occurs whereby the operator will validate the reserve status information to customers whether is processing or after processed. The fifth process whereby operator can add an delete the available category. Lastly, report generation can be produced after reservation record done by customers.

4.2 System Interface Design

Interface design is a process that describes how the system can interact with external entity (like operator and customer). Customer interface will determine how they interact with the system and the system efficiency in receiving input and produce output.

Figure 1: Main System Interface Design

Figure 1 shows the home page of interface design for photography reservation system. The main page only displays image to describe the photography reservation.

5. IMPLEMENTATION AND TESTING

This chapter discusses implementation and testing phase which is responsible to test the system function to ensure the system achieves users' requirements and the actual system design. The development and implementation of this system is done after planning and design are done at early stage. After implementation phase is done, system testing need to be carried out to understand the developed system function level.

5.1 Implementation

System implementation refers to the program record process from design phase. In this process, programming language PHP and MySQL are used as the medium to translate the user's requirements to system function. Besides, this process is carried out to determine the developed system is free from error.

5.2 Testing

System testing is done to test all the system function to achieve the required specification. This process is carried out to find out the strong points and weak points of the system. Testing is done by the operators and customers of Lensalyza Studio to ensure the developed system achieve user's requirements.

5.3 Reservation Module Function

Figure 2: Login interface design

Figure 2 shows the login interface design for photography reservation system. Customers have to input email and password before using the system. This is because it is used to filter valid customer information that is using the system. Before customers login to the system, customers have to register first.

Figure 3: List of categories interface

Figure 3 shows the list of categories for photography reservation. Customers can choose category before choosing any package provided by categories.

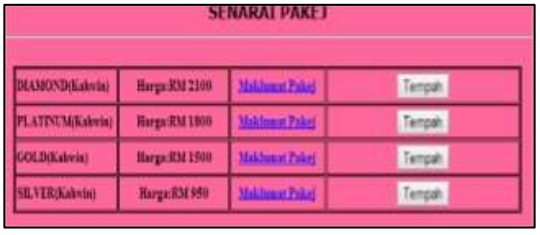

Figure 4: List of package interface

Figure 4 shows the list of packages displayed according to the chosen categories. Customers can choose the package list provided before make reservation process.

Figure 5: Reservation interface

Figure 5 shows the reservation interface. Customers can view the list of package displayed on it.

Figure 6: Payment interface

Figure 8 shows the list of payments displayed which are cash or bank payment. Customers can choose to make payment as displayed on the list. Below show the results of reservation module testing that is tested by Lensalyza Studio's users. Table 2 shows the reservation module testing results.

Table 2: Reservation Module Testing Results

Test Case	Expected Result	Actual Result
Customers can choose photography category	List of photography categories displayed	List of photography categories successfully displayed
Customers can choose packages based on the chosen category	List of package displayed based on the chosen categories	List of packages successfully displayed
Customers can view the chosen package list displayed on the reservation table	Chosen package list displayed on reservation table	Chosen package list successfully displayed on reservation table
Customers can make reservation	Reservation process is done	Photography package reservation successfully done
Customers can make payment	Payment list is displayed which is through cash or bank payment	Payment list is successfully displayed which is through cash or bank payment

4. CONCLUSIONS

As a whole, Lensalyza Photography Studio Reservation System is successfully achieving the objectives. This is because this system can automatize manual system to web system. Besides, the developed system can help customers to make reservation more conveniently. For operators, this system helps them in managing the reservation information from customers. Moreover, this developed system provides a lot of experiences in technology application based on web from the manual method to a more systematic method. Furthermore, the developed system contains improvement aspects in the future. Future improvement aspect is adding gallery module. Whereby customers can view the photography image displayed and download the image according to the image month.

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